

Response dated September 2, 2005
Response to Office Action mailed 06/07/2005

Application No. 10/611,313

REMARKS

The Office Action of June 7, 2005 has been reviewed and the comments therein were carefully considered. Claims 1-24 are currently pending. Claims 1-24 stand rejected. No new matter has been introduced into the application. As explained in more detail below, Applicant submits that all claims are in condition for allowance and respectfully requests withdrawal of the rejections.

Information Disclosure Statement

An Information Disclosure Statement was mailed on March 30, 2005. Applicant respectfully requests that the Information Disclosure Statement be acknowledged as being received by the Examiner.

Claim Rejections Under 35 USC §103

Claims 1-3, 9, 10, 12, and 14 are rejected under 35 USC §103(a) as being unpatentable over Wager, et al., in view of Campanella. Applicant respectfully traverses the rejection.

Wager provides error correction during a soft handover process wherein a plurality of versions of a single data block is received at a radio network control node. At least two of the received versions of the data blocks are combined to create a substantially error corrected version of the data block. In Wager, the handover decision and handover process are completed by the radio network node.

Campanella provides a satellite based radio broadcast system to broadcast programs via a satellite from a number of different broadcast stations. End-to-end signal processing includes coding for forward error correction preferably using two concatenated coding methods such as Reed Solomon method, followed by interleaving, and then convolution coding.

The Office Action states and Applicant agrees that Wager did not disclose the claimed element of "(d) if an error is detected within the second burst, correcting the error in accordance with a first forward error correcting (FEC) code, wherein the error results from the handover." (Office Action, Page 3). The Office Action asserts that the claimed feature may be found in Campanella and provides the following motivation for combining Wager and Campanella:

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it would have been obvious to one of ordinary skill in the art at the time of invention to use Campanella's disclosure of the FEC process with Wager's disclosure to correct transmission errors

(Office Action, Page 3).

Applicant contends that the asserted motivation is improper as Wager specifically teaches away from using forward error correction (FEC). Specifically, Wager states that the problems with FEC include the requirement of "the addition of redundant bit information within the transmitted bit stream." (Column 1, lines 39-41). In fact, a primary purpose of the Wager disclosure is to utilize a different type of error correction and not utilize FEC. Therefore, Applicant respectfully submits that in contrast to the Office Action's assertion, Wager teaches away from using FEC and the combination of Wager and Campanella is therefore improper.

Applicant respectfully requests withdrawal of the rejection for at least the above discussed reason. Dependent claims 2-3, 9, 10, 12, and 14 which ultimately depend from independent claim 1 are allowable for at least the same reason as independent claim 1.

Claim 4 is rejected under 35 USC §103(a) as being unpatentable over Wager in view of Campanella in further view of Bobey. Applicant respectfully traverses the rejection. Applicant submits that dependent claim 4 is allowable for at least the same reason as independent claim 1 from which claim 4 ultimately depends.

Claim 5 is rejected under 35 USC §103(a) as being unpatentable over Wager in view of Campanella in further view of Chou, U.S. Patent No. 6,594,798. Applicant respectfully traverses the rejection. Applicant submits that dependent claim 5 is allowable for at least the same reason as independent claim 1 from which claim 5 ultimately depends.

Claim 6 is rejected under 35 USC §103(a) as being unpatentable over Wager in view of Campanella in further view of Khayrallah in further view of Echols. Applicant respectfully traverses the rejection. Applicant submits that dependent claim 6 is allowable for at least the same reason as independent claim 1 from which claim 6 ultimately depends.

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Claim 7 is rejected under 35 USC §103(a) as being unpatentable over Wager in view of Campanella in further view of Lou. Applicant respectfully traverses the rejection. Applicant submits that dependent claim 7 is allowable for at least the same reason as independent claim 1 from which claim 7 ultimately depends.

Claim 8 is rejected under 35 USC §103(a) as being unpatentable over Wager in view of Campanella in further view of Scheller. Applicant respectfully traverses the rejection. Applicant submits that dependent claim 8 is allowable for at least the same reason as independent claim 1 from which claim 8 ultimately depends.

Claim 11 is rejected under 35 USC §103(a) as being unpatentable over Wager in view of Campanella in further view of Chou, U.S. Patent No. 6,594,798. Applicant respectfully traverses the rejection. Applicant submits that dependent claim 11 is allowable for at least the same reason as independent claim 11 from which claim 4 ultimately depends.

Claim 13 is rejected under 35 USC §103(a) as being unpatentable over Wager in view of Campanella in further view of Lou. Applicant respectfully traverses the rejection. Applicant submits that dependent claim 13 is allowable for at least the same reason as independent claim 1 from which claim 13 ultimately depends.

Claims 15-17 are rejected under 35 USC §103(a) as being unpatentable over Wager in view of Campanella in further view of Famolari. Applicant respectfully traverses the rejection. Applicant submits that dependent claims 15-17 are allowable for at least the same reason as independent claim 1 from which claims 15-17 ultimately depend.

Claims 18 and 19 are rejected under 35 USC §103(a) as being unpatentable over Willenegger in view of Schuster, U.S. Patent No. 6,145,109. Applicant respectfully traverses the rejection.

Willenegger provides for implementation of multi-cast service in a wireless communication system. In particular, Willenegger utilizes frames of information bits transferred to a buffer implementing a matrix including padding bits to support variable frame rates.

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Schuster provides for communicating substantially real time media signals over the Internet using an error correction scheme.

Independent claim 18 is directed to "a wireless terminal that receives data from a wireless system . . ." (Emphasis Added). The wireless terminal includes a processor configured to "(d) if an error is detected within the second burst, correcting the error in accordance with a forward error correcting (FEC) code, wherein the error results from the handover."

The Office Action states and Applicant agrees that Willenegger does not disclose the claimed feature of "(d) if an error is detected within the second burst, correcting the error in accordance with a forward error correcting (FEC) code, wherein the error results from the handover." (Office Action, Page 13). However, the Office Action asserts that the claimed feature may be found in Schuster. Applicant respectfully disagrees as Schuster does not correct the error, "wherein the error results from the handover." Moreover in Schuster, FEC redundancy blocks are concatenated with other payload blocks other than from which they are derived. (Column 2, lines 20). Thus, to correct a packet it is necessary to wait for multiple subsequent packets in accordance with Schuster's error correction scheme.

Furthermore, independent claim 18 is allowable for at least an additional reason. The Office Action provides the following motivation for combining Willenegger and Schuster:

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate FEC coding with Willenegger's disclosure to provide error correction coding for error-free code transmission."

(Office Action, Page 14).

Applicant contends that the asserted motivation is improper as Schuster is concerned with error correction over the Internet and not with FEC correction in a wireless terminal occurring during "handover" as claimed. Therefore, Applicant respectfully submits that the combination of Willenegger and Schuster is improper. Applicant respectfully requests withdrawal of the rejection for at least the above discussed reasons. Dependent claim 19 which depends from independent claim 18 is allowable for at least the same reason as independent claim 18.

Claims 20, 21 and 23 are rejected under 35 USC §103(a) as being unpatentable over Willenegger in view of Strawczynski. Applicant respectfully traverses the rejection.

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The Office Action states and Applicant agrees that Willenegger does not disclose at least the claimed feature of "determining a forward error correcting (FEC) code that provides a desired degree of robustness corresponding to the service and a possible loss of data packets when the wireless terminal handovers from the first base station to the second base station" (Office Action, Page 15). However, the Office Action states that this claimed feature is found in Strawczynski.

Applicant respectfully disagrees as Strawczynski does not disclose varying the FEC code to provide a desired degree of robustness corresponding to the service. As shown in the present application's specification at paragraph 48 "an operator of a wireless system may consider the nature of the service, in which different services may tolerate different error levels." Therefore, for at least this reason independent claim 20 is in condition for allowance.

Applicant respectfully requests withdrawal of the rejection for at least the above discussed reasons. Dependent claims 21 and 23 which ultimately depend from independent claim 20 are allowable for at least the same reason as independent claim 20.

Claim 22 is rejected under 35 USC §103(a) as being unpatentable over Willenegger in view of Strawczynski in further view of Schuster, U.S. patent No. 6,145,109. Applicant respectfully traverses the rejection. Applicant submits that dependent claim 22 is allowable for at least the same reason as independent claim 20 from which claim 22 ultimately depends.

Claim 24 is rejected under 35 USC §103(a) as being unpatentable over Strawczynski in view of Schuster, U.S. Patent No. 6,243,846. Applicant respectfully traverses the rejection.

The Office Action states that Strawczynski discloses the claimed feature of "(d) determining packet numbers that are associated with received packets of the second burst, wherein the packet numbers correspond to a transmitted packet ordering (Col. 6, lines 47-65)." (Office Action, Page 18). Applicant respectfully disagrees as the cited material of Strawczynski at Col. 6, lines 47-65 fails to disclose this feature. In fact, the cited material merely discusses construction of new information frames. Similarly, Schuster does not disclose this claimed feature. Therefore, for at least this reason independent claim 24 is in condition for allowance.

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Applicant respectfully submits that the instant application is in condition for allowance. Should the Examiner believe that a conversation with Applicant's representative would be useful in the prosecution of this case, the Examiner is invited and encouraged to call Applicant's representative.

Respectfully submitted,

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